

UNITED STATES PATENT OFFICE.

JAMES BUDD, OF NEW YORK, N. Y.

METHOD OF DECORATING GLASS OR OTHER SURFACES.

SPECIFICATION forming part of Letters Patent No. 526,558, dated September 25, 1894.

Application filed April 14, 1894. Serial No. 507,536. (No specimens.)

To all whom it may concern:

Be it known that I, JAMES BUDD, a subject of the Queen of Great Britain, at present residing in New York, in the county and State of New York, have invented new and useful Improvements in Methods of Decorating Glass or other Surfaces, of which the following is a full, clear, and exact description.

The invention relates to the production of signs, letters and ornamental designs on glass, enameled or similar surfaces, by the acid or the sand blast processes, and the object of the invention is to provide an improved method of producing the protective coating applied as a resistance to the acid or sand blast, whereby economy is greatly promoted and the cost of producing the signs and other designs greatly reduced.

The invention also has for its object the production of a coating that will afford efficient resistance to the acid or sand blast, and enable the design to be cut deeply into the glass or other surface.

Heretofore the practice generally, in the production of designs by the sand blast, has been to apply a sheet of blotting paper or analogous material to the surface and stencil the design therein, and in the practice of the acid process it is the general custom to apply a coating of wax and etch therein the desired design, to expose the surface to the acid at the desired points.

By my invention I provide an improved method whereby a roller covered with printers' composition may practically be employed to apply the protective coating or the main portion thereof, to the surface to be decorated, the design being first produced in or on a block, plate or other surface, which is inked with a varnish as hereinafter described, and the design then picked up by the roller covered with printers' composition and transferred to the surface to be decorated, the coating thus transferred being subsequently finished to resist the acid or sand blast as the case may be.

The operation under my invention is in detail as follows: I first produce the design, letters or signs on any suitable plate, block or other surface, and I then ink the same with litho-varnish having intermixed therewith a powdered fibrous material, such as powdered

textile fabrics, hemp, or flock, and preferably also the varnish contains a quantity of resin and red lead. The varnish with the resin, affords the necessary adhesiveness for the finishing materials, as hereinafter described, and forms an efficient binder for the fibrous material and the lead, while the fibrous material gives the necessary body, preserves proper defining lines or edges in the coating, and is yielding, and the red lead, in addition to adding body to the coating and thereby resisting the wearing action of a sand blast, also serves to resist acid, should the latter be used. The consistency of the varnish thus applied is such as to enable it to be readily picked up by a printer's roller, as the practical employment of the latter as a medium of applying the protective coating in the processes mentioned, greatly promotes economy.

If the sand blast is to be employed, the coating after being transferred by the printer's roller, is finished by dusting over the same a finishing covering of the powdered fibrous material, as much as will adhere, and the surplus is dusted off. The printer's roller deposits the design with clear cut defining edges and these are preserved in the finished coating. By this means I avoid stenciling, and I provide a fresh and new covering for each surface to be decorated, and this with the expedition that it is possible to obtain enables me to produce such articles as glass signs, in a perfect manner and at a cost greatly below that involved in present methods.

When the acid process is to be employed, the coating transferred to the glass or other surface, instead of being dusted with the powdered fibrous material, is dusted with powdered resin, which adheres to the coating, and after the surplus resin is dusted off, the glass plate or other object is placed in an oven and subjected to a heat of about 150° until the resin coalesces with the varnish, after which the coating is dusted over with powdered chalk and the coated article replaced in the oven and allowed to remain until the coating is thoroughly dried. The surface is now ready to be subjected to the acid bath, and the coating will be found to afford an effective protection to the covered parts to effectively withstand the attack of the acid.

In both instances it will be seen that an

adhesive coating is first inked onto the plate, block or other surface from which the design is to be transferred, and is deposited by the aid of a printer's roller onto the surface to be engraved, and then finished. In both instances also the powdered fibrous material is intermixed with the adhesive material.

The improved method above described constitutes an important advance in the art to which it relates, materially improving the results and lessening the cost.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The herein described method of producing signs and the like on glass and other surfaces, which consists in producing on the

glass or other surface a protective covering containing an adhesive and powdered fibrous material, and subjecting the said surface to the action of a material that will attack the unprotected portions of such surface, substantially as described.

2. The herein described improvement in the preparation of glass and other surfaces in the production of signs and other decorations by the sand blast or acid processes, consisting in applying thereto an adhesive protective covering containing powdered fibrous material, substantially as described.

JAMES BUDD.

Witnesses:

J. L. MCAULIFFE,

C. SEDGWICK.